

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicants:** Mikio Oda et al.

**Examiner:** Michael B. Shingleton

**Serial No.:** 10/584,735

**Art Unit:** 2815

**Filed:** June 26, 2006

**Docket:** 19993

**For:** OPTICAL-ELEMENT INTEGRATED  
SEMICONDUCTOR INTEGRATED  
CIRCUIT AND FABRICATION  
METHOD THEREOF

**Dated:** February 2, 2009

**Confirmation No.:** 8209

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO REQUIREMENT FOR RESTRICTION**

Sir:


Pursuant to the restriction requirement imposed in the Office Action dated December 8, 2008, Applicants provisionally elect, with traverse, the subject matter of Group I, Species A, i.e., Claims 1-9, for continued prosecution in the above-identified patent application, and additionally Applicants submit that the species election is improper as Claims 1-9 are generic claims.

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**CERTIFICATE OF ELECTRONIC FILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service via Electronic Filing through the United States Patent and Trademark Office e-business website.

Dated: February 2, 2009

  
Jean-Paul Cass

Favorable consideration and allowance of the claims of the present application are respectfully requested.

Applicants are in receipt of the instant Office Action dated December 8, 2008. In the Action, the Office alleges that the present application includes multiple distinct inventions, or namely Group I, Claims 1 through 16 drawn to an optical device apparatus, and Group II, Claim 17-26 drawn to a method of manufacturing a semiconductor integrated circuit. Specifically, the Office alleges that the method and apparatus are not distinct as the method can be practiced with another materially different process, or a process that does not form bumps in the integrated circuit.

As indicated, and in order to be fully responsive to the restriction requirement imposed in the present Office Action, Applicants hereby provisionally elect without traverse, Group I, or Claims 1 through 16 drawn to an apparatus. Applicants hereby withdraw Group II, or Claims 17 through 26 without prejudice to file a divisional patent application directed to those claims.

Additionally, the Action states that the instant patent application contains claims directed to more than one species of the generic invention as the species lack unity of invention. Specifically, the Office contends that the species are set forth as follows:

Species A directed to FIG. 3A (photodetectors 5a that receive incident light from a rear surface);

Species B directed toward FIG. 13A (apparatus which include lens 14);

Species C directed toward FIG. 14B (apparatus where the number of LEDs and photodetectors is modified when number of input ports and output ports are different);

Species D directed toward FIG. 15K (apparatus photodetector is mounted on an opening 15, whereby a plurality of photodetectors are mounted as a group); and

Species E directed toward FIG. 19A (apparatus with hybrid substrate 20 where an optical waveguide 18, end face mirror 19 and electrical wiring).

In response, Applicants submit that the Office is incorrect in that Claims 1-9 and are generic. Applicants submit that Claims 10 and 13 read on Species B. Claims 14-16 read on Species C. Therefore, Applicants respectfully disagree with the instant species rejection, and state that Claims 1-9 are generic claims, and read on multiple species as set forth above. The Action is erroneous. Claim 1 is directed to an optical-element integrated semiconductor integrated circuit where two or more optical elements for converting electrical signals that are the input to and the output from a semiconductor integrated circuit to optical signals are mounted on the semiconductor integrated circuit. The heights of two or more optical elements are identical. Applicants submit that this claim can read on an embodiment where photodetectors 5a receive incident light from a rear surface as shown in FIG. 3A or where the apparatus includes a lens 14 as shown in FIG. 13A, or where the apparatus has a number of LEDs and photodetectors being modified when number of input ports and output ports are different as shown in FIG. 14B or to the other species listed above.

Likewise, independent Claim 2 is also generic and recites that to two or more optical elements are divided into two or more groups and the heights of optical elements that belong to the same group are identical, but the heights of optical elements that belong to different groups are different. Under M.P.E.P. §806.04, in an application presenting three species illustrated, for example, in Figures 1, 2, and 3, respectively, a generic claim should read on each of these views, but the fact that a claim does so read is not conclusive that it is generic. It may

define only an element or subcombination common to the several species. In general, a generic claim should require no material element additional to those required by the species claims, and each of the species claims must require all the limitations of the generic claim. Applicants submit that Claims 1-9 read on each of the views, FIGS. 3A, 13A, 14B, 15K and 19A and the species restriction put forth by the Examiner is not proper.

However, in order to comply with the instant species election, Applicants herein elect with traverse, Group, I, Species A, and the following claims read on Species A, Claims 1-9.

Wherefore, consideration and allowance of the claims of the present application are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jean-Paul Cass', with a stylized, cursive script.

Jean-Paul Cass

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